

PATENT

D3301-00131

**IV. Remarks****A. Objections to the Specification**

Paragraph 2 has been amended to remove the URL reference.

Paragraph 42 has been amended to correct "radio-wave detection zone 18" to "radio-wave detection zone 16." It is believed that the Examiner meant to reference page "8" line 17 rather than page "1" line 17 in paragraph 2 of the Action.

Paragraph 73 has been amended to correct "step 9" to "step S9".

It is submitted that the foregoing amendments address the Examiner's objections set forth in the Action. Reconsideration and withdrawal of the objections are respectfully requested.

**B. Amendments to the Claims**

Claims 1 and 2 remain unchanged.

Claims 3 and 7 have been canceled.

Claim 4 has been amended to recite first, second, third and fourth judging means. Support for the amendments to Claim 4 can be found in the description set forth in the application at, for example, Paragraphs 70-73. The first judging means corresponds to Step S3, the second judging means corresponds to Step S5, the third judging means corresponds to Step S7 and the fourth judging means corresponds to step S9.

Claims 5 and 6 have been amended to comply with the amendments made to Claim 4 and new Claims 9 and 10 have been added. Support for the amendments to Claim 5 can be found at, for example, Paragraphs 85-90. Support for the amendments to Claim 6 can be found at, for example, Paragraphs 91-96. Support for new Claim 9 can be found at, for example, Paragraphs 97-102. Support for new Claim 10 can be found at, for example, Paragraphs 66-79.

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**C. Rejection under 35 U.S.C. §102**

The Action rejects Claims 1 and 8 as being anticipated by Activ8 Three On User's Guide and Activ8 Three Technical Specification Sheet ("Activ8") under 35 U.S.C. § 102(e). It is respectfully submitted that § 102(e) does not apply to the Activ8 art cited by the Examiner, as Activ8 is neither a patent nor a patent application reference as required by § 102(e). Perhaps the Examiner meant to reject Claims 1 and 8 under § 102(a). Withdrawal of this rejection under § 102(e) is requested or correction in any subsequent action, if any.

Claim 1 recites, *inter alia*, that the composite sensor for a door includes a light emitter-receiver section including "optical detection zone modifying means which increases or decreases a depth dimension of said optical detection zone in a direction perpendicular to said door." In support of the rejection, the Examiner cites to page 3 of the Activ8 Manual. This description, particularly in "7. IR presence sensing field: depth (negative angle available)" section thereof, describes an arrangement for rotating an adjustment screw to tilt two curtains toward and away from a door, so that, regardless of the position of the sensor, the distance between the curtain that is closer to the door can be set to a minimum value (5 cm). By rotating the screw, the tilt angle of **both** curtains is changed, i.e., both curtains are moved the same distance relative to the door. There is no disclosure or suggestion however about increasing or decreasing the actual depth dimension of the detection zone. The coverage width of the actual detection zone (defined perpendicular to the door) remains constant at 35 cm as seen from the figures shown in section "6. IR presence sensing field: width" of Activ8. In summary, Activ8 discloses a means by which the distance of the curtains from the door can be modified, but the depth of the curtain detection field remains constant. By way of comparison to Applicant's disclosure, FIGS. 6, 8 and 10 show examples of increasing (and thus inherently decreasing) a depth dimension of the optical detection zone in a direction perpendicular to the door.

Per the foregoing, reconsideration and withdrawal of the rejection of Claim 1 are respectfully requested. Claim 2 depends from Claim 1 and is, therefore, also allowable for at least the reasons set forth above.

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The Action rejects Claim 8 as being anticipated by Activ8. Claim 8 recites that the sensor includes "invalidating means for making a result of detection in said second detection zone invalid when an environmental condition around said door affects said result of detection in said second detection zone." The Examiner relies on Activ8's Manual, page 7, for teaching this feature. At this section, however, the manual states that when the IR presence detection is erroneous due to rain, future disturbances can be prevented by increasing the intensity of light. Such an arrangement, however, still may open the door unintentionally as a result of the detected event. In contrast, according to Claim 8, the result of detection is made "invalid" so that the door is prevented from being opened unintentionally. Activ8 neither discloses nor suggests any arrangement for invalidating the detection result. Accordingly, it is submitted that Claim 8 is not anticipated by the cited reference and is allowable thereover.

**D. Rejection under 35 U.S.C. §103**

The Action rejects Claim 4 as being obvious in view of Activ8.

In the rejection, the Examiner concludes that it would have been obvious that the door should be opened when both fields detect a presence and therefore determine that someone is approaching the door with the desire to enter. The second detection zone in the claimed sensor, however, is detected by means of light beams and, therefore, it is possible for external disturbing light beams to cause an erroneous judgment as if an object were detected. To avoid such a problem, as claimed in amended Claim 4, the third judging means is provided for judging whether or not the result of the judgment made by the second judging means, which detects an object in the second detection zone, is valid. The fourth judging means, recited in amended Claim 4, judges the results of judgments made by the first and second judging means in accordance with the judgment made by the third judging means, whereby it is judged whether or not an object has been actually detected. This arrangement can prevent the door from being opened unnecessarily. Such an arrangement is neither disclosed nor suggested by Activ8.

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On page 7 of Activ8, it is described that the presence detection disturbed by rain is notified, and that, in such case, the disturbance may be removed by increasing the light intensity. There is not disclosure or suggestion, however, of an arrangement to prevent unnecessary opening of the door under such circumstances.

For at least these reasons, it is submitted that Claim 4 and Claim 5, 6, 9 and 10, which depend therefrom, are not obvious from the cited reference.

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## V. Conclusion

In view of the foregoing remarks and amendments, Applicant(s) submit that this application is in condition for allowance at an early date, which action is earnestly solicited.

The Commissioner for Patents is hereby authorized to charge any additional fees or credit any excess payment that may be associated with this communication to deposit account 04-1679.

Respectfully submitted,

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